IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

ACQIS LLC, Plaintiff, v. SONY INTERACTIVE ENTERTAINMENT INC., SONY INTERACTIVE ENTERTAINMENT LLC, Defendants.	Case No. 6:22-cv-386-ADA **JURY TRIAL DEMANDED**

PLAINTIFF ACQIS LLC'S SUR-REPLY CLAIM CONSTRUCTION BRIEF

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4	U.S. Patent No. RE44,654 ("'654 patent")
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24	"National Semiconductor LVDS Owner's Manual" (1st Edition Spring 1997)
25	"National Semiconductor LVDS Owner's Manual" (2nd Ed. Spring 2000)
26	Huq, S., et al., "An Overview of LVDS Technology," Application Note 971 (Jul. 1998)

[1] For convenience, ACQIS again reproduces the entirety of Sony's and ACQIS's Tables of Exhibits, including exhibits submitted with Sony's Reply Brief.

Ex. No.	Description
27	*ACQIS LLC v. Alcatel-Lucent USA Inc., et al.* (ACQIS Opening CC Brief), No. 6:13-cv-638, Dkt. 129
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31	Ma, J., "A Closer Look at LVDS Technology," Application Note 41
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39	Dep. Tr. of V. Lindenstruth Vol. 1 (EMC v. Acqis), IPR2014-01462, Exhibit 1028
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45	PCI Local Bus Specification, Revision 2.2 (Dec. 18, 1998)
46	Universal Serial Bus Specification, Revision 2.0 (Apr. 27, 2000)
47	U.S. Patent No. 6,718,415
48	*ACQIS LLC v. Samsung Elecs. Co., Ltd., et al.*, No. 2:20-cv-00295-JRG, Dkt. 116 (E.D. Tex. Nov. 17, 2021) ("*Samsung*, Dkt. 116")

Ex. No.	Description
49	Expert Declaration of Nabil J. Sarhan, Ph.D. Regarding Claim Construction (June 9, 2023)
50	*VESA Plug & Display Standard* Ver. 1, Rev. 0 (June 11, 1997) ("VESA P&D Standard") **[HIGHLIGHTING ADDED]**
51	*Digital Visual Interface (DVI) Specification*, Rev. 1.0 (Apr. 2, 1999) ("DVI 1.0") **[HIGHLIGHTING ADDED]**
52	HyperTransport Consortium Press Release (Apr. 2, 2001)
53	HyperTransport™ Technology I/O Link, A High-Bandwidth I/O Architecture, AMD White Paper (July 20, 2001) **[HIGHLIGHTING ADDED]**
54	*ACQIS LLC v. ASUSTeK Computer, Inc.*, No. 6:20-cv-966-ADA, Dkt. 124 (Transcript of Sept. 1, 2022 Hearing) (W.D. Tex. Sept. 2, 2022) **[HIGHLIGHTING ADDED]**
55	*ACQIS LLC v. ASUSTeK Computer, Inc.*, No. 6:20-cv-966-ADA, Dkt. 52 (Claim Construction Order) (W.D. Tex. Nov. 17, 2021)
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62	Institution Decision, IPR2021-01110 ('750 Patent), Paper 11 (Dec. 2, 2021)
63	U.S. Patent No. 7,558,326
64	U.S. Patent No. 7,502,411

[2] Sony's exhibits submitted with its Reply Brief are numbered starting at Exhibit 57, which overlaps with ACQIS's Exhibit 57.

I. INTRODUCTION

ACQIS hereby submits its sur-reply claim construction brief in response to Sony's reply. The co-pending Related Case, *ACQIS LLC v. Microsoft Corp.*, No. 6:22-cv-00386-ADA, has resolved. As a result, the claims asserted only against Microsoft are no longer at issue here.[3] The claims asserted against Sony are: '797 cls. 33, 34; '768 cls. 1, 2, 13, 17; '750 cls. 1, 2, 5, 7, 10, 12, 21, 24, 31, 34, 35, 44; '654 cls. 20, 21; and '140 cls. 14, 15, 17-19, 21, 30, 31, 34-36, 38.[4]

II. ISSUE PRECLUSION DOES NOT APPLY BECAUSE SONY HAS NOT ESTABLISHED THAT ANY CLAIM CONSTRUCTION ISSUE HERE WAS IDENTICAL TO ANY ISSUE ACTUALLY LITIGATED OR NECESSARY TO A JUDGMENT IN *EMC*.

Sony has not established the elements of its collateral estoppel defense, including identical issues actually litigated and necessary to the judgment in *EMC*. First, Sony has not established identity of issues in *EMC* and this case. The *EMC Summary Judgment* and *EMC Appeal Decision* opinions do not include any *Phillips* analysis of the proper scope of any claim term. Dkt. 54 (Resp. Br.) at 7-9. The *EMC Summary Judgment* opinion applied EMC's interpretation of the parties' stipulated construction of "PCI bus transaction." *Id.* at 7-8. The court refused to consider ACQIS's arguments about the intrinsic evidence, finding them forfeited. *Id.* A procedural determination of forfeiture based on a stipulation to a proposed construction does not address the issues here: the meaning of the claim terms and phrases to a POSITA at the time of the invention under *Phillips*.

The *EMC* decisions thus provide no guidance to resolve the *Phillips* issues before the Court now. Sony's reply concedes this implicitly by addressing only "ACQIS's *briefing*" in *EMC* instead

[3] One agreed construction, for the term "peripheral bridge," (*see* Dkt. 53 (Op. Br.) at 30), is no longer at issue, as none of the Asserted Claims here include this term.

[4] The following claims were asserted only against Microsoft and thus are no longer at issue: '797 cls. 7-9, 14, 16, 17, 36, 38; '768 cls. 3-5, 14, 39, 40; '750 cls. 3, 32, 33, 45; and '654 cls. 23, 24, 26, 27, 35, 36.

of the actual language of the *EMC Summary Judgment* or *EMC Appeal Decision* opinions. Dkt. 57 (Reply Br.) at 1-2. The issues addressed by the *EMC* judgments, not all the arguments raised in ACQIS's briefing, control the issue preclusion analysis. *State Farm Mut. Auto. Ins. Co. v. LogistiCare Sols., LLC*, 751 F.3d 684, 689 (5th Cir. 2014). The *EMC* courts entered judgment against ACQIS based on an application of a stipulated construction and a forfeiture finding, not any *Phillips* claim construction analysis.

In particular, the *EMC Summary Judgment* and *EMC Appeal Decision* opinions do not address the import, under *Phillips*, of the asserted claim phrases here that recite conveying only specific "bits of" a "PCI bus transaction." Dkt. 54 (Resp. Br.) at 4-6. Sony mistakenly accuses ACQIS of making false statements, (Dkt. 57 (Reply Br.) at 1-2), but to do so Sony mischaracterizes ACQIS's point: neither *EMC* court *addressed* the meaning of this claim language under *Phillips*, because the district court entered summary judgment under a different theory, and the Federal Circuit affirmed also without a *Phillips* analysis. Dkt 54 (Resp. Br.) at 4-6. Whether either court "considered" the meaning of claims reciting "bits" of a "PCI bus transaction," as Sony asserts they did, we do not know—neither said so. As ACQIS explained in its responsive brief—and which Sony does not address in its reply—even the Federal Circuit's comment about "related terms" does not include any phrase that recites conveying only certain "bits" "of a" "PCI bus transaction" without previously reciting an entire "PCI bus transaction." *EMC Appeal Decision*, No. 2021-1772, 2022 WL 1562847, at *1 n.1 (Fed. Cir. May 18, 2022) (citing '416 cl. 60, which depends from cl. 56 (Ex. 6 at 32:55-33:7, 33:17-19), '487 cl. 49, which depends from cl. 48 (Ex. 8 at 42:15-36), '873 cl. 29 (Ex. 10 at 40:34-58), and '294 cl. 44 (Ex. 9 at 19:63-20:14)). Thus Sony incorrectly relies on ACQIS's briefing, not the courts' decisions. Dkt. 57 (Reply Br.) at 1-2.

Sony also has not identified any claim language in *EMC* identical to the claim terms at issue here. Instead, its opening brief characterized the claim language here and in *EMC* as "extremely similar," "very closely related," "extremely close," and "highly similar," (Dkt. 53 (Op. Br.) at 3-4), and it makes no new arguments on this issue in reply to rebut ACQIS's response that in fact, the claim language differs. Dkt. 54 (Resp. Br.) at 3-6; Dkt. 57 (Reply Br.) at 1-3. Attorney argument cannot replace evidence. Differences in claim language alone means the intrinsic evidence is not "the same in this case as in in [sic] *EMC*," as Sony contends. Dkt. 57 (Reply Br.) at 2. The differences between the claim language in *EMC* and here also means that the issues now before the Court were not actually litigated in *EMC*.

Finally, Sony's reply does not address the *EMC* district court's finding of forfeiture or ACQIS's argument that the forfeiture finding means that the *Phillips* construction of "PCI bus transaction" or any other claim term was not necessary to the judgment in *EMC*. Dkt. 57 (Reply Br.) at 1-3; Dkt. 54 (Resp. Br.) at 7-9. The *EMC Appeal Decision* does not change this analysis because it does not include any *Phillips* analysis or any determination reversing the district court's forfeiture finding or otherwise substituting a *Phillips* analysis as an alternate basis upon which to affirm the judgment. Dkt. 54 (Resp. Br.) at 8-9. Sony has not addressed this flaw in its issue preclusion defense and thus has not established the required element of necessity to the judgment for any claim construction issue in dispute here.

III. CLAIM CONSTRUCTION

A. Sony Has Not Rebutted ACQIS's Evidence Demonstrating that "LVDS" Had a Known, Objective Meaning Not Limited to Two Specific Standards.

Sony has not established that the intrinsic or extrinsic evidence justifies limiting "LVDS" to two specific standards (that differ from one another) or proven indefiniteness by clear and convincing evidence. Sony's reply arguments and evidence do not rebut the intrinsic evidence, not

considered by Sony or Dr. Wolfe in the first instance, disclosing industry uses of the term "LVDS" generically to describe technologies such as TMDS that differ from the TIA-644 and IEEE 1596.3 standards. Sony's reply provides no evidence suggesting that ACQIS's or Dr. Sarhan's analysis of this intrinsic evidence is incorrect, it provides no excuse justifying Sony's and its expert's failure to address this intrinsic evidence, and it provides no legal basis to disregard this intrinsic evidence.

The intrinsic and extrinsic evidence cited in ACQIS's responsive brief describes several industry-recognized LVDS examples—including the VESA P&D Standard, TMDS, DVI, and HyperTransport—and thus demonstrates the error in Sony's arguments that a POSITA would have understood LVDS as limited to the TIA-644 and/or IEEE 1596.3 standards or not understood it at all. Dkt. 54 (Resp. Br.) at 9-13 (citing Ex. 49, Sarhan Decl., ¶¶ 34-51). Skilled artisans in the computing industry knew how to use and understand the term "LVDS" in a generic manner not tied to either of those two standards, and the evidence contains many examples of that usage. *Id.*

Sony did not address that evidence in its opening arguments, and it relies only on attorney argument and new extrinsic evidence—neither entitled to meaningful weight in view of clear intrinsic evidence—in its reply. First, Sony again argues that certain references purport to "define LVDS" as limited to the TIA-644 or IEEE 1596.3 standards. Dkt. 57 (Reply Br.) at 3-4. As already discussed in ACQIS's responsive brief, these references (and ACQIS's briefing addressing them in prior cases) "define" specific *types* of LVDS technologies, but not the universe of *all* LVDS technologies, particularly in view of the other examples on the face of the intrinsic record. Dkt. 54 (Resp. Br.) at 12 (citing Ex. 49, Sarhan Decl., ¶ 33). Sony offers no evidence in reply to address this evidence from ACQIS or a reason to dismiss it.

Second, Sony insinuates through argument that TMDS, the VESA P&D Standard, and DVI all comply with one or both (Sony does not specify) of the TIA-644 and IEEE 1596.3 standards,

but Sony cites no evidence for this proposition. Dkt. 57 (Reply Br.) at 4-5. It has no evidence to offer because Sony's expert Dr. Wolfe did not address even the TMDS or VESA P&D Standard discussed in the ACQIS patents' specifications. Dkt. 54 (Resp. Br.) at 12 (citing Ex. 20, Wolfe Decl., ¶ 40). Only ACQIS's expert, Dr. Sarhan, has addressed this issue, explaining that "[a] POSITA would recognize that TMDS does not follow either ANSI/TIA/EIA-644 or IEEE 1596.3." Ex. 49, Sarhan Decl., ¶ 49.

Other evidence—that Sony also does not address—confirms that DVI, for example, differs from the TIA-644 and IEEE 1596.3 standards: while TIA-644 specifies a voltage swing range of 247-454 mV and IEEE 1596.3 specifies a range of 250-400 mV,[5] DVI describes a range of 400-600 mV. Ex. 22, TIA-644 at 8; Ex. 23, IEEE 1596.3 at 7; Ex. 51, DVI 1.0 at 36. The VESA P&D Standard, explicitly cited in the ACQIS patents, differs as well and in fact specifies that voltage swing on the cable is an adjustable preset. Ex. 50, VESA P&D Standard at 32 ("The voltage swing on the cable is adjustable with 500mV being the recommended voltage."), 32 n.1 ("The P&D standard requires the voltage swing to be preset."). Table 6-1 provides voltage swing ranges under normal operating conditions for two settings, providing ranges of 269-331 mV and 483-567 mV, respectively. *Id.* at 49. Table 5-1 provides theoretical voltage swing calculations under the adjustable swing range. *Id.* at 32. Dr. Sarhan's testimony remains unrebutted and consistent with this evidence. Sony's attorney argument carries no weight and conflicts with the record.

Third, Sony introduces new extrinsic evidence to allege that Silicon Image defined "LVDS" according to the TIA-644 and IEEE 1596.3 standards in two of its own patents. Dkt. 57 (Reply Br.) at 4 n.3. This extrinsic evidence itself does not clearly define "LVDS" because it refers to a "*set of serial links* known as Low Voltage Differential Signaling ('LVDS') links (e.g., 'LDI,'

[5] Sony misstates the output differential voltage as 250 to 450 mV. Dkt. 53 (Op. Br.) at 8.

the LVDS Display Interface)." *Id.* at 4 n.3 (citing Ex. 63, U.S. Pat. No. 7,502,411 (filed 2004) at 3:24-29; Ex. 64, U.S. Pat. No. 7,558,326 (filed 2001) at 5:7-11). These extrinsic references do not specify whether the "set" referred to includes all known LVDS technologies or some subset of those technologies, and they cannot justify limiting "LVDS" to two standards when the intrinsic evidence says otherwise.

Fourth, Sony contends that because HyperTransport is an "enhanced LVDS technique," it "is not LVDS." Dkt. 57 (Reply Br.) at 4 n.4. Sony offers no logic to explain how an industry description of a technology as "a type of low voltage differential signaling (LVDS)" and an "LVDS technique," (Ex. 53, AMD HyperTransport White Paper at 11), renders that technology "not LVDS" except to suit Sony's flawed construction and analysis.

Fifth, Sony identifies a distinction between claims that recite "LVDS" and claims that recite "differential signal channels," (Dkt. 57 (Reply Br.) at 4-5), but this distinction does not suggest that "LVDS" must therefore mean only two specific LVDS standards. The unrebutted evidence in ACQIS's response shows that a POSITA recognized LVDS technologies as a subset of differential signaling technologies, which also include non-LVDS technologies such as ECL and PECL. Dkt. 54 (Resp. Br.) at 9-10 (citing Ex. 49, Sarhan Decl., ¶ 42; Ex. 26, Huq at 1-2). Sony too recognizes ECL and PECL as non-LVDS differential signaling technologies and also that "numerous other differential signaling standards . . . existed at the time." Dkt. 57 (Reply Br.) at 5-6. The claims may indicate that "LVDS" channels constitute a subset of "differential signal channels," but that does not suggest that "LVDS" actually means only a narrow subset of industry-recognized LVDS technologies. ACQIS claimed a category of technologies known as LVDS that plainly include more than the two examples identified by Sony.

Sixth, Sony attempts to dismiss its expert Dr. Wolfe's failure to consider the material intrinsic evidence such as the ACQIS patents' discussion of TMDS and VESA P&D, but does not dispute that omission from Dr. Wolfe's analysis. Dkt. 57 (Reply Br.) at 5. Dr. Wolfe did not consider all intrinsic evidence available to a POSITA, rendering his opinions unreliable for failure to consider "sufficient facts or data" under Federal Rule of Evidence 702(b). *Cf. Genuine Enabling Tech. LLC v. Nintendo Co., Ltd.*, 29 F.4th 1365, 1373, 1375 (Fed. Cir. 2022) (finding error in reliance, for claim construction, on expert testimony in conflict with the intrinsic record).

Sony's blanket rebuttal that "Dr. Wolfe fully considered the teachings of the specification," (Dkt. 57 (Reply Br.) at 5), cannot rehabilitate Dr. Wolfe's omission of material evidence from his analysis. Even if Dr. Wolfe considered all the intrinsic evidence, he did not say so in his testimony. If he considered it and left it out of his declaration deliberately, that too renders his testimony unreliable under Federal Rule of Evidence 702(c), because "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of *the entire patent*, including the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (emphasis added).

Seventh, Sony challenges ACQIS's reference to other differential signal channel technologies like ECL and PECL as "random (or at least cherry-picked)," (Dkt. 57 (Reply Br.) at 5-6), but does not address that the intrinsic evidence describes LVDS in contrast to exactly these prior technologies. Dkt. 54 (Resp. Br.) at 9-10 (citing Ex. 49, Sarhan Decl., ¶ 42; Ex. 26, Huq at 1-2). Sony further raises several hypothetical questions about the industry's use of this contrast to describe LVDS, but introduces no evidence that a POSITA at the time of the inventions would have considered any of these questions meaningful or been unable to discern their answers with

reasonable certainty. Attorney questions cannot provide a substitute for evidence or justify setting aside the industry evidence and expert testimony submitted by ACQIS.

Sony's *prima facie* case did not establish indefiniteness by clear and convincing evidence due to the flaws in Dr. Wolfe's analysis of the intrinsic record, ACQIS's response provided additional evidence undermining Sony's arguments, and Sony's reply has not provided a basis to disregard ACQIS's evidence or rehabilitate its own. Sony has not proven indefiniteness, and the intrinsic evidence demonstrates the plain error in Sony's alternative construction that excludes LVDS technologies described in the ACQIS patents' specifications. ACQIS's evidence—including the intrinsic evidence and unrebutted, thorough testimony from Dr. Sarhan—demonstrates that a POSITA in the computing industry recognized "LVDS" as a generic term in 1998-1999 and knew how to use it to differentiate LVDS technologies from other differential signaling techniques. "[T]he evidence demonstrates that ['LVDS'] had an established, sufficiently objective meaning in the art" and thus the term "LVDS" "inform[s] those skilled in the art about the scope of the . . . patent's claims with reasonable certainty." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1260, 1261 (Fed. Cir. 2014).

B. "Peripheral Component Interconnect (PCI) bus transaction" / "PCI bus transaction"

This Court already concluded in *ASUSTeK* that "or backwards compatible" does not expand the scope of the claim. *See* Dkt. 54 (Resp. Br.) at 14-15 (citing Ex. 54, *ASUSTeK*, Dkt. 124 at 36:6-16). Sony provides no justification to depart from the Court's previous conclusions. Sony rehashes arguments that this Court has already considered and rejected.

Sony misrepresents ACQIS's proposed construction and this Court's previous conclusions in suggesting that ACQIS's construction "adds a second, *alternative*, category of transactions" and that "'*or* backwards compatible' is expressly written as an alternative." Dkt. 57 (Reply Br.) at 7

(emphases in original). Given the Court's conclusions in *ASUSTeK*, it cannot be the case that "or backwards compatible" adds another category of transactions. Indeed, this Court concluded that "'in accordance with' *includes* 'backward compatibility[.]'" Ex. 54, *ASUSTeK*, Dkt. 124 at 36:11-16 (emphasis added). Consistent with this Court's conclusions, "or" is not being used as a disjunctive, but rather to connect equivalents. As ACQIS explained in *ASUSTeK*, an example of this usage of "or" is "photons or individual particles of light travel huge distances in space." *Id.* at 12:15-17. In this example, "photons" and "individual particles of light" are equivalents connected by "or." The same is true in "or backwards compatible." Backwards compatibility is simply one way in which a transaction can be "in accordance with" the PCI Local Bus Specification.

Given the parties' apparent dispute regarding the scope of "PCI bus transaction," the Court should clarify the meaning of "in accordance with the industry standard PCI Local Bus Specification," whether through a construction explicitly including "or backwards compatible," as ACQIS has proposed, or through a clarifying statement as the Court did in *ASUSTeK*.

C. "convey [/conveying/conveys/communicating/communicate/transmitting] … a Peripheral Component Interconnect (PCI) bus transaction [/of a PCI bus transaction]"

Sony argues that "[w]hile every claim in *EMC* may not have recited specific bits, ACQIS cannot contest that there were claims at issue in *EMC* that recited specific bits." Dkt. 57 (Reply Br.) at 9. ACQIS does not dispute that certain claims asserted in *EMC* recited conveying only specific bits[6] (although '873 claims 54 and 61, which Sony focuses on, are not among them, as discussed below). The point, however, as discussed in section II above, is that the neither the district court in *EMC* nor the Federal Circuit substantively addressed claims that recite conveying only certain bits because the term construed in *EMC* was "communicating . . . PCI bus

[6] ACQIS's acknowledgement of these claims in briefing in *EMC* has no bearing on any issue here.

transaction." *EMC Claim Construction*, No. 14-cv-13560, 2017 WL 6211051, at *8 (D. Mass. Dec. 8, 2017).[7] Neither court made any express findings or rulings that the construction of "communicating . . . PCI bus transaction" applies to claims that recite conveying only specific bits.

Sony also mischaracterizes the Federal Circuit's decision in *EMC*, suggesting the Federal Circuit "not[ed] it is appropriate to treat claims similarly, including those reciting 'communicating . . . encoded PCI address and data bits.'" Dkt. 57 (Reply Br.) at 9. But as discussed in section II above, every "slight variation" referenced by the Federal Circuit in footnote 1—'416 claim 60, '487 claim 49, '873 claim 29, and '294 claim 44—recites a complete PCI bus transaction. *EMC Appeal Decision*, 2022 WL 1562847, at *1 n.1; § II, *supra*. This does not support Sony's position.

Sony also relies on arguments made by ACQIS on appeal to suggest the Asserted Claims should be construed to require a complete PCI bus transaction, including all "control bits." Dkt. 57 (Reply Br.) at 9 (quoting Ex. 59 (ACQIS Corr. Appeal Br.) at 26-27). As discussed in section II above, however, the issues addressed by the *EMC* judgments, not all the arguments raised in ACQIS's briefing, control the issue preclusion analysis. *State Farm*, 751 F.3d at 689.

Finally, Sony contends that '873 claims 54 and 61 do not require a full PCI bus transaction, but instead require only specific bits. Dkt. 57 (Reply Br.) at 10. Sony uses this misreading of these claims to suggest ACQIS's counsel's statements in IPR apply to the Asserted Claims here. They do not. Claim 54 recites "communicating an encoded serial bit stream of Peripheral Component Interconnect (PCI) bus transaction," (Ex. 10 at 43:48-49), and dependent claim 61 recites "the encoded serial bit stream of PCI bus transaction comprises encoded PCI address and data bits." *Id.* at 44:5-7. Claim 54, and therefore claim 61, thus recite communicating a PCI bus transaction, and

[7] Even this term was addressed only in passing by the district court in *EMC* because the construction was adopted by agreement of the parties. *See EMC Claim Construction*, 2017 WL 6211051, at *8.

the "encoded serial bit stream" of that PCI bus transaction must include certain encoded bits, i.e., address and data bits. Those claims do not recite communicating only certain bits "of a PCI bus transaction." Dependent claim 61 instead recites what must constitute the structure of the "encoded serial bit stream." As Judge Payne noted, "Claim 61 excludes from the scope of the claim the interrupt acknowledge transaction by requiring non-zero address bits." Ex. 21, *Samsung*, Dkt. 92 at 23. ACQIS's statements from the '873 IPR have no bearing on the parties' dispute.

D. "of a Peripheral Component Interconnect (PCI) bus transaction [/of a PCI bus transaction]"

Sony contends that "[i]t is illogical to suggest that specifically recited bits 'of a PCI bus transaction' do not need to be 'from a' PCI bus transaction." Dkt. 57 (Reply Br.) at 11. Sony again misreads the Asserted Claims. Specifically recited bits "of a PCI bus transaction" must be in accordance with or backwards compatible with those bits as described in the PCI Local Bus Specification. The claims do not require that those bits exist in an entire PCI bus transaction—the recitation of specific bits demonstrates that the claimed phrases do not require other elements of an entire PCI bus transaction.

E. Claims reciting a [Peripheral Component Interconnect] PCI bus transaction, or an encoded [Peripheral Component Interconnect] PCI bus transaction, "in [a] serial form" or "serially encoded" or "in a serial bit stream"

In a transparent attempt to broaden the applicability of the *EMC* claim constructions, Sony diminishes the importance of "encoded" in the disputed terms, contending that "the *EMC* Court's construction and finding of disclaimer relating to this term [i.e., '[e]ncoded . . . serial bit stream of Peripheral Component Interconnect (PCI) bus transaction'] *had nothing to do with the word* '*encoded*.'" Dkt. 57 (Reply Br.) at 11 (emphasis added).

The *EMC Claim Construction* contradicts Sony's bald assertion and shows that "encoded" drove the *EMC* district court's finding of disclaimer and the resulting claim construction:

> *Because the claims use "encoded" in the context of communicating or transmitting a PCI bus transaction in serial form*, ACQIS's patent owner's responses strongly suggest that the claims require serializing an otherwise parallel transaction.

EMC Claim Construction, 2017 WL 6211051, at *6 (emphasis added).

> ACQIS's numerous and repetitive statements in the IPRs clearly and unmistakably show that an *encoded* PCI bus transaction requires that a PCI bus transaction be *encoded* for serial transmission from a parallel form.

Id. at *7 (emphasis added).

The *EMC* district court also relied on material from the '873 patent specification that demonstrates the significance of "encoded," citing, for example, an embodiment that "has a 'parallel to serial converter' and 'encoder[s]' that 'format the PCI address/data bits to a form more suitable for parallel to serial conversion. . . .'" *Id.* at *8 (citing Ex. 10, '873 at Fig. 10, 16:55-58).

The *EMC* district court's analysis indicates that the presence of "encoded" alongside the terms "serial" and "PCI bus transaction" led the court to construe "[e]ncoded . . . serial bit stream of Peripheral Component Interconnect (PCI) bus transaction" as "a PCI bus transaction that has been serialized from a parallel form." Given the court's reliance on "encoded" language in the claims at issue in *EMC*, there is no basis for disregarding "encoded" in the Asserted Claims here, and construing the Asserted Claims the same way regardless of whether a claim includes the term "encoded," as Sony proposes.

Finally, Sony contends that "ACQIS ignores the fact that each Asserted Patent includes independent claims . . . directed to LVDS channels that do not recite a 'PCI bus transaction,'" and that "Figures 8A and 8B depict such an embodiment." Dkt. 57 (Reply Br.) at 12. Sony suggests that "[t]hese figures do not reference a PCI bus transaction at all and, therefore, do not support ACQIS's argument that a 'PCI bus transaction' need not be serialized from a parallel form." *Id.*

Sony mischaracterizes Figures 8A and 8B. These figures reference a PCI bus transaction because they illustrate embodiments of the invention's "XPBus." *See, e.g.*, Ex. 1, '768 at Figs. 8A,

8B. The specification describes the XPBus as the invention's channel for communicating bits of a PCI bus transaction. For example, Figure 13 describes address, data, and byte enable information bits of a PCI bus transaction communicated over the XPBus. Ex. 1, '768 at Fig. 13; *id.* at 21:37-58 (describing Figure 13 as "a table showing the information transmitted on the XPBus" and explaining Figure 13's depiction of, *inter alia*, "PCI address" bits, "PCI data" bits, and "PCI byte enable information" bits). Properly understood in view of the intrinsic record as well as Dr. Sarhan's testimony, Figures 8A and 8B confirm that a "PCI bus transaction" need not originate in a parallel form. Sony's proposed construction is therefore incorrect and should not be adopted.

F. "console"

ACQIS's proposed construction adopts this Court's previous construction of "console." *See* Ex. 55, *ASUSTeK*, Dkt. 52 at 10. This Court's previous construction was well-considered and consistent with the intrinsic record, and it should be adopted here. Although Sony suggests "ACQIS does not argue that [Sony's] construction is incorrect," (Dkt. 57 (Reply Br.) at 13), as ACQIS stated in its responsive brief, Sony's construction is incorrect because it would "improperly limit a console to a 'chassis,'" (Dkt. 54 (Resp. Br.) at 28), and in requiring that the console "connects *several* components," Sony's construction would improperly limit the applicable claims to embodiments housing multiple coupling sites. *See C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 865 (Fed. Cir. 2004) (refusing to limit claims to specific embodiments).

G. "USB" / "Universal Serial Bus (USB) protocol" / "Universal Serial Bus (USB) protocol [data/information]"

In this Court's claim construction order in *ASUSTeK*, which came after Judge Payne's construction in *Samsung*, this Court concluded that the disputed "USB" terms should be given their plain and ordinary meaning, rejecting a proposed construction very similar to the one Sony proposes. Ex. 55, *ASUSTeK*, Dkt. 52 at 9. The Court should reach the same conclusion here.

First, Sony accuses ACQIS of "attack[ing] a strawman that Defendants' construction does not require—that the claims do not recite a USB bus and 'all the aspects required to implement such a bus.'" Dkt. 57 (Reply Br.) at 13 (citing Dkt. 54 (Resp. Br.) at 28). In the next breath, however, Sony contradicts itself, arguing that the "USB protocol" of the USB 2.0 Specification "requires communications compliant with the standard." *Id.* at 14.[8] As Dr. Sarhan's testimony confirms, USB 2.0 is "half-duplex," i.e., "data is transmitted using a bidirectional differential signal pair," and "data can only be transmitted in one direction at a time." Ex. 49, Sarhan Decl., ¶ 66. "Communications complaint with the standard," as Sony phrases it, would have to be transmitted according to USB 2.0's half-duplex transmission protocols. As Dr. Sarhan states, "[t]he relevant 'USB' Asserted Claims . . . all recite unidirectional, serial channels that transmit data in opposite directions, i.e., full duplex, which is completely different from USB 2.0." *Id.*, ¶ 67. Sony's position is thus inconsistent with the plain language of the Asserted Claims.

This incongruity undermines Sony's discussion of *Fundamental Innovation Systems Int'l LLC v. Samsung Electronics Co.*, No. 2:17-cv-145-JRG-RSP, 2018 WL 647734, at *7-11 (E.D. Tex. Jan. 31, 2018) ("*FISI*"). As discussed in ACQIS's responsive brief, the claims in *FISI* do not alter the claimed features of the applicable USB standards. Dkt. 54 (Resp. Br.) at 29. In contrast, the claims at issue here deviate from USB protocols such as USB 2.0. The relevant Asserted Claims recite conveying certain USB-related information over a specific transmission medium, i.e., unidirectional, serial channels. The claims thus address both what information is sent and how. As discussed above, the USB 2.0 Specification also specifies not only what is sent but also how, i.e., according to USB 2.0's half-duplex transmission protocols. Because the relevant Asserted Claims

[8] Sony also cites the USB 2.0 Specification's explanation that a "protocol" is a "specific set of rules, procedures, or conventions relating to *format and timing of data transmission* between two devices[.]" Dkt. 57 (Reply Br.) at 14 (citing Ex. 46, USB 2.0 at 8) (Sony's emphasis).

improve the "how" of half-duplex USB protocols, it makes no sense to construe the claims to require compliance with USB 2.0 transmission protocols. Sony's attempt to address the disputed terms devoid of their context is unavailing.

H. "serial bit channels" and "serial channel"

Sony again fails to support its proposed construction, instead seeking to impose a prior, non-binding, agreed construction from a previous case involving different claims and patents. Sony emphasizes the familial relationships between patents rather than addressing the different claims across the Asserted Patents and patents asserted in previous cases. Sony does not address at all the context in which the "serial [bit] channel(s)" appear in the Asserted Claims here versus the claims at issue in previous cases, including the purported "components" they connect.

Regarding Sony's use of the term "component" in its construction, although Sony contends "[t]here is no evidence or argument as to how the word 'component' is ambiguous," (Dkt. 57 (Reply Br.) at 15), it is Sony that cites no support—intrinsic or extrinsic—for construing "serial [bit] channel(s)" to include the term "component." As noted in ACQIS's responsive brief, the claims specify where data flows on the claimed "serial [bit] channel(s)." Dkt. 54 (Resp. Br.) at 30. In requiring an ill-defined "component" on the other end of the channel(s), Sony's construction adds a limitation, most notably to claims that do not otherwise specify what is on the other end of the "serial [bit] channel(s)." *See, e.g.*, Ex. 2, '750 at 41:35-41 (claim 10) (reciting LVDS channel connected to the "integrated CPU and graphics subsystem in a single chip," comprising "serial bit channels," without specifying anything on the other end of the channels). Sony's unsupported attorney argument that "[a] 'channel' does not exist in isolation—it connects two things," (Dkt. 57 (Reply Br.) at 15), cannot override the language of the Asserted Claims. Sony's construction is incorrect and unnecessary to address any actual dispute and thus should not be adopted.

Dated: July 7, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 7, 2023, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing via electronic mail to all counsel of record.

/s/ *Logan J. Drew*
Logan J. Drew